

What is claimed is:

1     1.    A method comprising:

2             inserting a vector in a packet that identifies a first  
3     device in a stack of packet forwarding devices to receive the  
4     packet.

1     2.    The method of claim 1 further comprising:

2             using the vector and a table to determine a port for  
3     sending the packet to the first device in the stack of packet  
4     forwarding devices.

1     3.    The method of claim 2 further comprising:

2             copying the packet for sending through a second port  
3     identified by using the vector and the table.

1     4.    The method of claim 1 wherein the vector includes a bit  
2     identifying the first device in the stack of packet forwarding  
3     devices to receive the packet.

1     5.    The method of claim 1 further comprising:

2             removing the vector from the packet for sending the  
3     packet to a second device external to the stack of packet  
4     forwarding devices.

1     6.    The method of claim 1 wherein the first device includes a  
2     router.

1     7.    The method of claim 1 wherein the vector includes bits  
2     respectively identifying packet forwarding devices in the  
3     stack.

1     8.    A computer program product, tangibly embodied in an  
2     information carrier, the computer program product being  
3     operable to cause a machine to:

4                 insert a vector in a packet that identifies a first  
5                 device in a stack of packet forwarding devices to receive  
6                 the packet.

1     9.    The computer program product of claim 8 being further  
2     operable to cause a machine to:

3                 use the vector and a table to determine a port for  
4                 sending the packet to the first device in the stack of  
5                 packet forwarding devices.

1     10.   The computer program product of claim 9 being further  
2     operable to cause a machine to:

3                 copy the packet for sending through a second port  
4                 identified by using the vector and the table.

1     11.   The computer program product of claim 8 the vector  
2     includes a bit identifying the first device in the stack of  
3     packet forwarding devices to receive the packet.

1 12. A computer program product of claim 8 being further  
2 operable to cause a machine to:

3           remove the vector from the packet for sending the  
4           packet to a second device external to the stack of packet  
5           forwarding devices.

1 13. The computer program product of claim 8 wherein the first  
2 device includes a router.

1 14. The computer program product of claim 8 wherein the  
2 vector includes bits respectively identifying packet  
3 forwarding devices in the stack.

1 15. A packet forwarder comprises:

2           a process to insert a vector in a packet that  
3           identifies a first device in a stack of packet forwarding  
4           devices to receive the packet.

1 16. The packet forwarder of claim 15 further comprising:

2           a process to use the vector and a table to determine  
3           a port for sending the packet to the first device in the  
4           stack of packet forwarding devices.

1 17. The packet forwarder of claim 15 further comprising:

2           a process to remove the vector from the packet for  
3           sending the packet to a second device external to the  
4           stack of packet forwarding devices.

1    18. A system comprising:

2           a switch device capable of,  
3           inserting a vector in a packet that identifies  
4           a first device in a stack of packet forwarding  
5           devices to receive the packet.

1    19. The system of claim 18 wherein the switch device is  
2    further capable of:

3           using the vector and a table to determine a port for  
4           sending the packet to the first device in the stack of  
5           packet forwarding devices.

1    20. The system of claim 18 wherein the switch device is  
2    further capable of:

3           removing the vector from the packet for sending the  
4           packet to a second device external to the stack of packet  
5           forwarding devices.

1    21. A packet forwarding device comprising:

2           an input port for receiving a packet;  
3           an output port for delivering the received packet;  
4           and

5           a switch device capable of,  
6                 inserting a vector in the received packet that  
7           identifies a first device in a stack of packet  
8           forwarding devices to receive the packet.

1   22. The packet forwarding device of claim 21 wherein the  
2   switch device is further capable of:

3                 using the vector and a table to determine the output  
4           port for sending the received packet to the first device  
5           in the stack of packet forwarding devices.

1   23. The packet forwarding device of claim 21 wherein the  
2   switch device is further capable of:

3                 removing the vector from the received packet for  
4           sending the received packet to a second device external  
5           to the stack of packet forwarding devices.

1   24. A router comprising:

2                 a switch device capable of inserting a device vector  
3           a packet that identifies a first device in a stack of  
4           packet forwarding devices to receive the packet.

1   25. The router of claim 24 wherein the switch device is  
2   capable of using the device vector and a stack device table to  
3   determine a port for sending the received packet to the first  
4   device in the stack of packet forwarding devices.

1     26. The network switch of claim 24 wherein the switch device  
2     is capable of removing the device vector from the received  
3     packet for sending the received packet absent the device  
4     vector to a second device external to the stack of packet  
5     forwarding devices.